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SELF-IMPLEMENTING ON-SITE CLEANUP & DISPOSAL OF PCB WASTE PLAN

Gustave Johnson Memorial Swimming Pool
35 Wanoosnock Road
Fitchburg, Massachusetts

Prepared for:

Commonwealth of Massachusetts
Department of Conservation and Recreation
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1.0 INTRODUCTION

This plan has been prepared by Resource Control Associates, Inc. (Resource Controls) on behalf of the Massachusetts Department of Conservation and Recreation (DCR) care of Yee Consulting Group, Inc. to comply with the U.S. Environmental Protection Agency (EPA) requirements for notification of a Self-Implementing On-Site Cleanup and Disposal of Polychlorinated Biphenyl (PCB) Waste Plan (SIP) per 40 CFR Part 761.61(a)(3). This plan concerns the proposed removal of PCB-containing caulking at the Gustave Johnson Memorial Swimming Pool Facility located at 35 Wanoosnock Road in Fitchburg, Massachusetts (herein after referred to as the Site). The layout of the facility on the Site is shown on Figure 5.

1.1. Background

The DCR is responsible for conducting the remedial activities described in this plan. The DCR had scheduled the Gustave Johnson Swimming Pool bath house to be demolished in preparation for the construction of a new structure at the existing location. To support these facility renovation efforts, Yee Consulting of Stoughton, Massachusetts was retained to collect samples of the caulking to determine if the material contained PCBs. Caulking samples were collected on February 16, 2010 and submitted to Con-Test Analytical Laboratories for analysis. Concentrations of PCBs were found in the samples analyzed as high as 22,000 milligrams per kilogram (mg/kg). A copy of the report from Yee Consulting is included as Appendix A.

The concentrations of PCBs detected in the soil also constitute a release under the Massachusetts Contingency Plan (MCP) 310 CMR 40. As such, the Massachusetts Department of Environmental Protection (MassDEP) shall be informed of the release condition and the work shall also be conducted under a Release Abatement Measure Plan under the MCP. The MassDEP and the local Board of Health shall be informed of the remedial activities.

The intent of the sampling performed by the Yee Consulting Group (YCGI) during this visit was to conduct a screening for PCBs at the site that would be impacted by the proposed renovation activities. At that time, YCGI had mistakenly included the pool and wading pool in the scope of work. The scope of activities for this effort is only related to demolition and replacement of the bathhouse area. As discussed below, the pool and wading pool will be addressed during future renovation activities.

The Department of Conservation of Recreation Gustave Johnson Pool was built in the 1970's. DCR staff report that a 1994 construction contract for the Fitchburg pool included the replacement of the main drain at the main pool and replacement of approximately 50% of the concrete decking around the pool. The work included the application of sealant (caulking) to all concrete deck joints, which would have involved removal and replacement of damaged or missing caulking.

2.0 SITE CHARACTERIZATION

As a follow-up to the aforementioned Yee assessment, several additional samples were collected on March 18, 2010. These samples consisted of gray joint caulking and adjacent concrete located at the Main Pool Deck, Wading Pool Deck, Women's Locker Room, and Men's Locker Room. The concentrations of PCBs from these samples ranged from none detected to 13,000 mg/kg. The analytical results for the caulking samples collected at the Site are summarized in Table 1 and the laboratory reports are included in Appendix B.

On December 1, 2010 Resource Controls assisted Yee in the collection of concrete and soil samples to characterize potential PCB-contaminated adjacent substrate materials at the Site consistent with the requirements of 40 CFR 761.61(a)(3). The assessment activities were conducted in several phases. Initially, 21 samples were collected from the foundation footing, the adjacent concrete deck, and the soil underneath the deck. The concentrations of PCBs ranged from none detected to 13 mg/kg.

Once the results of the initial sampling event by Resource Controls were received and reviewed, Resource Controls remobilized to the Site to collect additional samples to address data gaps in the previous assessment. During the remobilization, additional soil and concrete samples were collected.

One June 7, 2011 Resource Controls was at the site to collect additional soil samples from the outside perimeter of the building. The samples were collected from six locations along the grass bordering the predominantly northwest and southwest sides of the building.

2.1. Sample Collection

Site inspections and sampling were conducted on several occasions between February 16, 2010 and June 7, 2011. Resource Controls has significant experience in the assessment of building materials and soil. Included in the field team were U.S. EPA accredited asbestos inspectors, who have conducted hundreds of building materials surveys. The Resource Controls personnel were also experienced in conducting environmental site assessments that include the collection of soil samples for laboratory analysis and substrate materials for PCB laboratory analysis.

The concrete samples were obtained utilizing a hammer drill and 1" drill bit to reduce the concrete to dust for collection. The drill bit was decontaminated prior to the collection of each sample with hexane or mineral spirits. Samples were collected adjacent to, but not touching the caulking, six (6) inches and twelve (12) inches out from the caulking at grade. Samples were also collected along the footing at depths of six (6) and twelve (12) inches. Based on the construction of the building, it is not likely that any PCB contamination could have migrated beyond the building foundation on the east and south sides of the building due to the construction of these areas. As shown on Figure 4, caulking was only observed on the interior joint between the concrete deck and the interior face of the concrete foundation. No caulking was observed on any of the joints on the exterior face of the concrete foundation. This construction likely prevented the migration of PCBs to the exterior of the foundation. Therefore no samples were collected from the concrete in these areas.

The samples were collected in clean jars provided by the laboratory. The samples were labeled in the field and preserved on ice. The samples were transported to the laboratory under standard chain-of-custody protocol. The concrete samples were submitted to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts and were extracted by USEPA Method 3540C (Soxhlet Extraction) and analyzed by EPA Method 8082. Laboratory analytical results are summarized in Table 2 and compared to the U.S. EPA Unrestricted Use Clean-up Level of 1 mg/kg under 40 CFR 761.61(a) for bulk PCB remediation waste. Copies of the laboratory reports are included as Appendix B. The locations where the samples were collected are shown on Figure 3.

On August 30, 2011, Resource Controls collected additional concrete samples from the deck in the area of the proposed cut line to verify the concentration at the cut line. The samples were collected in accordance with the *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs)* dated May 5, 2011. The sample locations are shown as CON 1 – 29 and CON COMP 1 – 4. The samples were managed as described above and the analytical results are summarized in Table 2 with copies of the laboratory analytical reports included in Appendix B.

Soil samples were collected in depth intervals of approximately six (6) inches. Samples were collected from the surface grade to a depth of approximately six (6) inches below the surface grade to assess for impacts to the soil by the caulking. In several areas, additional soil samples were collected from six (6) to twelve (12) inches below the surface grade. The soil samples were collected with a four (4) inch diameter hand auger that was decontaminated with mineral spirits prior to collection of each sample.

The soil samples collected from C1, C3, C5 and C7 were grab samples at the spacing indicated in Table 3. The soil samples collected on June 7. 2011 were composite samples. Each composite sample consisted of three (3) grab samples, with the exception of S3 which consisted of six (6) samples. The location of each grab sample is shown in Figure 2.

Locations S2 and S5 had additional samples collected at a depth interval of three (3) inches. The results of this data are summarized in Table 3. The concrete deck was cored or saw-cut in order to access the soil and the concrete footing below grade. These samples were submitted for laboratory analysis as grab samples rather than composites to further evaluate the concentrations of PCBs detected.

All soil samples were labeled in the field, collected in clean, appropriately preserved glassware and transported to the laboratory under standard chain-of-custody protocol. The soil samples were submitted to Con-Test Analytical Laboratory and were extracted by USEPA Method 3540C (Soxhlet Extraction) and analyzed by EPA Method 8082. Laboratory analytical results are summarized in Table 3 and compared to the U.S. EPA Unrestricted Use Clean-up Level of 1 mg/kg under 40 CFR 761.61(a) for bulk PCB remediation waste and the applicable MassDEP Massachusetts Contingency Plan (MCP) Method 1 Soil Standards. Copies of the laboratory reports are included as Appendix B. The locations where the samples were collected are shown on Figure 1 through Figure 3.

2.2. Data Usability Assessment

The following sections describe the selection of sample locations, sample collection methods, and the results of the characterization data. Figures depicting the locations of all soil and concrete samples collected by Resource Controls are presented as Figures 2 and 3.

A data quality assessment was conducted to evaluate the usability of the site characterization data. The results were validated by a review of sample custody, holding times, surrogates, method blanks, matrix spike/matrix spike duplicates, laboratory control samples, and field duplicates. The assessment was performed in general conformance with USEPA Region I Guidelines and the Quality Control Guidelines.

Accuracy of the analytical data was assessed by reviewing recoveries for matrix spikes (MS), matrix spike duplicates (MSD), surrogates, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD). All MS/MSD analyses met acceptance criteria for relative percent difference. Appropriate data qualifiers were applied to the laboratory results for these samples. The laboratory control samples were in control for all analytes in all data packages. Representativeness of the data was evaluated qualitatively utilizing site use information and historical sampling data.

Consistent procedures and laboratory analysis of the data were achieved. Sample containers were packed on ice and were accompanied by complete chain of custody forms from the time of sample collection until laboratory delivery. All samples were analyzed within the allowable holding time for their respective analyses. No analytes were detected in the laboratory batch blank analysis, indicating that there were no interferences introduced at the laboratory during sample analysis. All quality control criteria for initial calibration and calibration verification were within acceptable limits.

The data packages were reviewed to ensure that all sample and associated quality assurance results were available. The completeness review indicated that all collected samples were analyzed and all quality control results were available to complete the data validation process. Based on a review of the existing site data, the data adequately represents the materials tested, and the samples collected to date are considered usable for the purposes of characterizing PCB-affected media in accordance with 40 CFR Part 761.

2.3. Results of Site Characterization

2.3.1. Building Caulking Samples

As shown in Table 1, PCBs were detected in caulking in concentrations ranging from 0.79 to 22,000 mg/kg. PCBs were found to be present above 50 mg/kg in gray joint caulking applied to the interior perimeter of the Bath House concrete deck. As previously stated, no caulking was observed on the exterior of the concrete foundation. The approximate quantity of this material observed at the Site is estimated to be 400 linear feet.

2.3.2. Concrete Samples

As shown in Table 2, concentrations of PCBs were found in concrete at sample locations C1 directly adjacent to the caulking, C1 Footing six (6) inches, C2 Footing twelve (12) inches, C3 Footing six (6) inches, C3 Footing twelve (12) inches, and C4 directly adjacent to the caulking above the U.S. EPA Unrestricted Use Clean-up Level for bulk PCB remediation waste. The concentrations for concrete samples ranged from none detected to 13 mg/kg. In general, impacted concrete was found to be present up to six (6) inches away from the caulking on the horizontal concrete deck on the interior of the building and up to twelve (12) inches down from the caulking on the building foundation.

The August 30, 2011 concrete sampling confirmed that PCB impacts above the U.S. EPA Unrestricted Use Clean-up Level for bulk PCB remediation waste are limited to less then one foot horizontally from the PCB-containing caulking.

2.3.3. Soil

As shown in Table 3, various concentrations of PCBs were detected in soil samples C3 Soil 0-6 inches, C3 Soil 6-12 inches above the U.S. EPA Unrestricted Use Clean-up Level for bulk PCB remediation waste and the applicable MassDEP Massachusetts Contingency Plan (MCP) Method 1 Soil Standards. Low concentrations of PCBs were detected in composite soil samples S2 and S5, at 0.24 and 0.30 mg/kg, respectively. Since both of these composite soil samples consisted of three (3) grab samples, it is not theoretically possible for any single grab sample to have had a concentration greater then the U.S. EPA Unrestricted Use Clean-up Level for bulk PCB remediation waste. In general, impacted soil was found to be present less than six (6) inches horizontally and less than twelve (12) inches down vertically from the caulking on the inside of the building foundation.

Locations S2 and S5 had additional samples collected at a depth interval of three (3) inches. The results of this data are summarized in Table 3. The concrete deck was cored or saw-cut in order to access the soil and the concrete footing below grade. These samples were submitted for laboratory analysis as grab samples rather than composites to further evaluate the concentrations of PCBs detected.

3.0 REMEDIAL PLANNING

3.1. General Overview

The intent of the proposed remedial activities at the Site is to remove the PCB-containing caulking and adjacent contaminated substrate to allow for new construction at the site of the current structure. Prior to the remedial activities, site preparation and controls will be established and implemented. The wooden structure presently at the site will be removed prior to the commencement of remedial activities. This demolition will not unduly impact the caulking or contaminated substrate. The remedial activities are proposed to be conducted under a self-implementing cleanup and disposal plan per 40 CFR 761.61(a). Given building conditions and use, the applicable cleanup goal for residual PCBs is the high occupancy area cleanup level for bulk remediation waste (i.e. caulking waste and soil) of 1 mg/kg.

All PCB-containing caulking, PCB-contaminated concrete and PCB-contaminated soil shall be removed and properly disposed of at an offsite landfill in accordance with applicable regulations. There will be three waste streams for the project as follows: PCB bulk waste; solid remediation waste, and; liquid remediation waste.

To accomplish the removal of the PCB-contaminated concrete, the concrete deck shall be cut at twelve (12) inches horizontally from the caulking on the interior of the building. The concrete foundation shall be cut at sixteen (16) inches below the top of the footing. Please refer to Figures 3 and 4 for details related to the proposed cut locations and contaminated concrete. The concrete in these areas is not contaminated by PCBs based on the sampling conducted to date. As such for the majority of the concrete cutting work, no containment or management of water is required since these activities would occur in areas verified to not contain PCBs. Additional verification sampling shall be conducted as further discussed in Section 4.4 prior to the concrete cutting. The contractor has proposed to conduct minimal relief cutting to assist in the management of impacted PCBs. Engineering controls for the management of dust and water from these areas are discussed in the DecTam work plan.

To accomplish the removal of the PCB-contaminated soil, the soil shall be excavated to a depth of twelve (12) inches below the caulking and a width of twelve (12) inches horizontally from the caulking. The excavated soil shall be stockpiled on and covered with polyethylene sheeting and transported offsite for disposal. The location of the contaminated soil is shown on Figures 2 and 4.

The Department of Conservation and Recreation has retained the services of Dec-Tam, Inc., an environmental contractor, to complete the remedial activities described in this plan. Several of the components of this plan have been proposed as performance based criteria. The means and methods for completing the work are described in the contractor work plan prepared by Dec-Tam and included as Appendix D.

Based on some of the proposed removal methodologies by Dec-Tam, some of the, verification sampling shall be conducted prior to the cutting and removal of the concrete to confirm that no PCB impacts are present at the proposed cut location. For the soil remediation, the verification sampling shall be conducted following the excavation activities. The verification sampling is further discussed in Section 4.4.

3.2. Applicable Regulations & Standards

The following regulations are applicable to the project:

- 40 CFR 761 Toxic Substance Control Act
- 29 CFR 1910.120 Hazardous Waste Operations & Emergency Response, Federal Occupational Safety & Health Act
- 29 CFR 1926 Safety & Health Regulations for Construction
- 40 CFR 260 General Regulations for Hazardous Waste Management
- 40 CFR 261-267 Regulations regarding the Handling & Disposal of Hazardous Waste
- 40 CFR 171-180 Regulations regarding the Transportation of Hazardous Waste
- 310 CMR 30 Massachusetts Regulations regarding Hazardous Waste Management

3.3. Health & Safety

The contractor shall develop a site specific health and safety plan (HASP). The HASP shall be incompliance with applicable state and federal regulations regarding the safe handling of the PCBs and PCB-contaminated materials.

3.4. Pre-Removal Activities & Submittals

As previously mentioned, the Department of Conservation and Recreation has retained the services of Dec-Tam, Inc., an environmental contractor to conduct the proposed remedial activities. The following is a summary of the required submittals supplied by the contractor. Additional submittals may be required as detailed in the specifications package.

- Schedule
- Detailed Work Plan for the Remedial Activities
- Health and Safety Plan
- Municipal and State permits
- Disposal facility profile, test results and acceptance
- Manifests and shipping documentation for all material removed from the site
-

A copy of the above submittal information provided to date is included in Appendix D.

3.5. Remedial Schedule

Remediation activities will be initiated upon approval of this plan. The remediation of the PCB-containing caulking shall be conducted during the summer of 2011.

4.0 REMEDIAL EXECUTION

4.1. Site Preparation & Controls

Prior to initiating the remedial activities, the following site controls will be implemented:

- A Health & Safety Plan will be developed specific to the work activities. All workers will follow applicable Federal and State regulations regarding the work activities, including but not limited to OSHA regulations, respiratory protection, personal protective equipment, etc.;
- Prior to any work, the boundaries of the remedial work area will be marked and properly secured with a temporary construction fence with controlled access points;
- Impermeable drop clothes shall be placed adjacent to all concrete and soil removal areas;

- Engineering controls will be utilized as a dust suppressant, as appropriate;
- Air monitoring within the support work zone and perimeter to this zone will be conducted during the active removal of soils. To reduce dust levels and exposures to dust, a combination of engineering controls and personal protective equipment will be implemented as part of the work activities. A perimeter air monitoring plan is provided as Section 4.2.

4.2. Air Monitoring

Airborne particulate matter (PM) consists of many different substances suspended in air in the form of particles (solids or liquid droplets) that vary widely in size. Inhalation hazards are caused if the intake of these particles includes intake of vapors and/or contaminated dust. Particles less than 10 micrometers in diameter (PM-10), which include both respirable fine (less than 2.5 micrometers) and coarse (less than 10 micrometers) dust particles, pose the greatest potential health concern because they can pass through the nose and throat and get into the lungs.

During the performance of the planned remediation activities, particulate matter in the form of potentially PCB affected dust may be generated. The greatest potential for the generation of affected dust is during the removal of PCB-contaminated concrete. The main dust control mechanism to be employed on the project will be the use of engineering controls such as wetting and containment, along with personal protective equipment (PPE) for workers. In addition, particulate air monitoring will be conducted during dust-generating activities in the work zone and along the perimeter. Particulate air monitoring will determine if fugitive dust particles are present in the ambient air within the designated work zone and/or perimeter during active removal activities. A direct-reading particulate meter will be used to monitor airborne particulate concentrations during site activities. Particulate concentrations shall be utilized as an indirect indicator of exposures to on-site receptors.

Dust concentrations will be measured utilizing a real time aerosol particulate monitor capable of determining ambient air fugitive dust concentrations to 0.001 milligrams per cubic meter (mg/m3). Air monitoring shall be conducted around the perimeter while active removal activities are occurring and at a minimum frequency of one reading per hour of activities. Air monitoring equipment within the work zone shall be operated by the contractor to ensure that worker PPE in use is appropriate. Air monitoring equipment along the perimeter shall be operated by Resource Controls to ensure that fugitive dust has not left the work areas. Prior to the active removal actions and at periodic points during the project, air monitoring readings will be recorded to document background particulate matter concentrations.

If total particulate concentrations along the perimeter of the work zone exceed the action limits (as specified below and incorporating background readings) and are sustained for greater than 5 minutes, additional dust suppression techniques to mitigate fugitive dust shall be initiated. If applicable, the dust suppression techniques shall involve the application of a fine mist of water over the area creating the fugitive dust condition. The water shall be applied either by small hand held sprayers, sprinklers, or hose nozzles. The water source for dust suppression activities will be from the Site's water supply. In the event that the total of airborne particulate cannot be maintained below the action limit in the perimeter to the work zone, then work activities shall be ceased until sustained readings are below the action limit.

OSHA has published the following permissible exposure limits (8 hour time weighted average) for air contaminants (29 CFR 1910.1000):

Air Contaminant	PEL (8-hour TWA)
Total Dust	15 mg/m3

Respirable Dust Fraction	5 mg/m3
PCBs (42% Chlorine)	1 mg/m3
PCBs (54% Chlorine)	0.5 mg/m3

In addition, EPA has established a National Ambient Air Quality Standard for PM-10 of 0.150 mg/m3 (24-hr average).

Given the maximum anticipated PCB concentration in dust that may be generated during abatement activities, a conservative action limit of 0.1 mg/m3 above background will be maintained during site work. Air monitoring at a location representative of background air conditions (i.e. a location upwind of the work area) will be conducted at the same frequency as perimeter monitoring to obtain data representative of real-time background conditions. The action limit will be used to determine if and when additional engineered controls and/or work stoppages would be necessary.

Air monitoring equipment will be calibrated according to manufacturer's specifications. Weather and other site conditions may affect the normal operation of the equipment, which will require routine maintenance. Weather conditions will be noted on daily air monitoring logs. It is expected that dust or other particulate matter will not be a concern on rainy or misty days.

4.3. PCB Remedial Waste Removal

All visible caulking within the area of the proposed remedial activities shall be removed. Following the caulking removal, the PCB-contaminated concrete and soil shall be removed as described above. Engineering controls, such as misting or containments, may be employed to ensure that no fugitive dust escapes the work area to contaminate adjacent areas of the building or property. The specific engineering controls to be utilized are specified as described in the contractor's work plan.

4.4. Verification Sampling

Following the removal of the PCB-contaminated, concrete deck (as shown on Figures 1-4) and the excavation of the PCB-contaminated soil, Resource Controls shall collect verification samples from the bottom of the excavation. This verification sampling shall be at a frequency of one sample per ten (10) linear feet. The samples shall be composite in groups of up to nine (9) consecutive samples. Samples will be gathered by a 4" diameter hand auger, which shall be decontaminated between samples.

Once the PCB-contaminated deck and soil have been removed, the contractor shall cut the foundation at the area indicated on Figure 4. Prior to the cutting of the PCB-contaminated concrete foundation, Resource Controls shall collect verification samples along the area. This verifications sampling shall be at a frequency of one sample per ten (10) linear feet. The samples shall be composite in groups of up to nine (9) consecutive samples. Samples of the concrete foundation shall be collected in accordance with the *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs)* dated May 5, 2011.

Additional details regarding the verification sampling plan are provided below:

- All samples will be transported to the laboratory under standard chain of custody procedures, extracted using USEPA Method 3540C (Soxhlet extraction), and analyzed for PCBs using USEPA Method 8082.

- In addition to the primary samples indicated above, duplicate samples will be collected at a frequency of one per twenty primary samples. These samples will be submitted to the laboratory as part of the QA/QC procedures associated with sample collection.
- Upon receipt of the analytical results, the sample data will be reviewed for QA/QC compliance and then compared to the clean-up levels.
- Con-Test Analytical has historically been able to provide method detection limits as low as 0.095 to 0.10 mg/kg for samples collected from this Site. As such, the method detection limits are likely to be low enough to allow for the up to nine (9) samples per composite without exceeding the calculated detection limit of less than 1 mg/kg per sample in the composite

The concrete slab verification sampling has been conducted. The locations of the samples collected are shown on Figure 3 and the results are summarized in Table 2. A typical location for the foundation verification samples has been shown on Figure 4

4.5. Waste Storage & Disposal

The following activities will be completed with regard to the proper storage and disposal of PCB remediation wastes:

- At the end of each work day, any work areas will be secured by temporary fencing;
- A secure, lined, covered, and marked waste container (roll-off or equivalent) or 55-gallon DOT-approved steel containers will be staged for the collection of PCB wastes generated during the work activities in accordance with 40 CFR 761.65;
- All containers will be properly labeled and marked in accordance with 40 CFR 761.40;
- Upon completion of the work or when a container is considered full, the waste will be transported off-site under manifest for disposal at an approved disposal facility;
- Copies of all manifests, waste shipment records, bills of lading, and certificates of disposal will be collected and provided as part of the final report to EPA.

There will be three waste streams for the project as follows: PCB bulk waste; solid remediation waste, and; liquid remediation waste. All waste shall be managed as greater than or equal to 50 ppm of total PCBs for disposal.

4.6. Site Restoration

Following completion of the removal activities and verification that the clean-up levels have been met, the site controls will be dismantled and all wastes will be transported off-site for proper disposal. The control of the Site shall then be turned over to the general contractor for the completion of the construction activities related to the new bath house.

4.7. Record Keeping & Documentation

Following completion of the work activities, records and documents per 40 CFR Part 761 will be generated and maintained at one location by the Department of Conservation and Recreation. These documents will be made available to EPA upon request. A final report documenting the completion of the work activities and including but not limited to a description of the work activities implemented, verification analytical results, volumes of disposed materials, and waste disposal documentation will be prepared and submitted to EPA.

5.0 LIMITATIONS

This report in total has been prepared on behalf of and for the exclusive use of the Department of Conservation and Recreation, solely for use in an environmental evaluation of the subject property. This report or any part thereof, may not be altered, used, relied upon or reproduced by any party other than the Department of Conservation and Recreation, without first obtaining written permission from Resource Control Associates, Inc. Conclusions stated herein are based on the available information summarized herein and refer only to the specific subject property investigated. No warranty is implied or given and the report is subject to the agreement for the work, including the Standard Terms and Conditions attached to said agreement, as well as Additional Limitations bound herein.

TABLES

TABLE 1
SUMMARY OF CAULKING ANALYTICAL RESULTS

GUSTAVE JOHNSON MEMORIAL SWIMMING POOL
35 WANOOSNOCK ROAD
FITCHBURG, MA

Sample ID	Date Sampled	Result (mg/kg)	Location
1A	3/18/2010	**1.2**	Main Pool Deck
1B	3/18/2010	**0.79**	Wading Pool Deck
2A	3/18/2010	13,000	Women's Locker Room
2B	3/18/2010	13,000	Men's Locker Room

Notes:
BOLD indicates that concentrations exceed laboratory method detection limits.
Red indicates concentrations of PCBs detected above the U.S. EPA TSCA Limit of 50 ppm.
mg/kg = milligrams per kilogram.
PCBs = Polychlorinated biphenyls

TABLE 2
SUMMARY OF CONCRETE ANALYTICAL RESULTS

GUSTAVE JOHNSON MEMORIAL SWIMMING POOL
35 WANOOSNOCK ROAD
FITCHBURG, MA

Sample ID	Date Sampled	Depth (inches)	Distance from Source (horizontal inches away)	Result (mg/kg)
C1	12/1/2010	0.25	2	5.4
C1+12	12/1/2010	0.25	12	**0.43**
C1-F1	12/1/2010	6	6	3
C2	12/1/2010	0.25	2	**0.34**
C2+12	12/1/2010	0.25	12	**0.14**
C2-F1	3/9/2011	6	6	**0.22**
C2-F2	3/9/2011	12	12	1.3
C3	12/1/2010	0.25	2	**0.53**
C3+12	12/1/2010	0.25	12	**0.1**
C3-F1	12/1/2010	6	6	13
C3-F2	3/9/2011	12	12	2.3
C4	12/1/2010	0.25	2	1.2
C4+12	12/1/2010	0.25	12	**0.66**
C4-F1	3/9/2011	6	6	**0.57**
C4-F2	3/9/2011	12	12	**0.18**
C5	12/1/2010	0.25	2	<0.095
C5+12	12/1/2010	0.25	12	<0.095
C5-F1	12/1/2010	6	6	<0.10
C6	12/1/2010	0.25	2	**0.61**
C6+12	12/1/2010	0.25	12	**0.37**
C6-F1	3/9/2011	6	6	**0.42**
C6-F2	3/9/2011	12	12	**0.24**
C7	3/9/2011	0.25	2	**0.22**
C7+12	3/9/2011	0.25	12	**0.13**
C7-F1	3/9/2011	6	6	**0.6**
C7-F2	3/9/2011	12	12	<0.10
1A Con	3/18/2010	0.25	2	<0.10
1B Con	3/18/2010	0.25	2	<0.10
2A Con	3/18/2010	0.25	2	260
2B Con	3/18/2010	0.25	2	30

Notes:
BOLD indicates that concentrations exceed laboratory method detection limits.
Red indicates concentrations of PCBs detected above the U.S. EPA Unrestricted Use Clean-up Level for bulk PCB remedaition waste of 1 ppm
mg/kg = milligrams per kilogram.
PCBs = Polychlorinated biphenyls

TABLE 2 CONTINUED
SUMMARY OF CONCRETE ANALYTICAL RESULTS

GUSTAVE JOHNSON MEMORIAL SWIMMING POOL
35 WANOOSNOCK ROAD
FITCHBURG, MA

Sample ID	Date Sampled	Depth (inches)	Distance from Source (horizontal inches away)	Result (mg/kg)
Con 1	8/30/2011	0.5	12	**0.18**
Con 2	8/30/2011	0.5	12	<0.091
Con 3	8/30/2011	0.5	12	**0.14**
Con 4	8/30/2011	0.5	12	<0.087
Con 5	8/30/2011	0.5	12	<0.091
Con 6	8/30/2011	0.5	12	<0.095
Con 7	8/30/2011	0.5	12	<0.095
Con 8	8/30/2011	0.5	12	<0.095
Con 9	8/30/2011	0.5	12	<0.091
Con 10	8/30/2011	0.5	12	**0.32**
Con 11	8/30/2011	0.5	12	**0.15**
Con 12	8/30/2011	0.5	12	**0.61**
Con 13	8/30/2011	0.5	12	**0.28**
Con 14	8/30/2011	0.5	12	**0.29**
Con 15	8/30/2011	0.5	12	<0.087
Con 16	8/30/2011	0.5	12	<0.095
Con 17	8/30/2011	0.5	12	**0.12**
Con 18	8/30/2011	0.5	12	**0.13**
Con 19	8/30/2011	0.5	12	**0.12**
Con 20	8/30/2011	0.5	12	<0.095
Con 21	8/30/2011	0.5	12	<0.087
Con 22	8/30/2011	0.5	12	**0.16**
Con 23	8/30/2011	0.5	12	<0.095
Con 24	8/30/2011	0.5	12	**0.53**
Con 25	8/30/2011	0.5	12	**0.39**
Con 26	8/30/2011	0.5	12	**0.23**
Con 27	8/30/2011	0.5	12	**0.15**
Con 28	8/30/2011	0.5	12	<0.095
Con 29	8/30/2011	0.5	12	**0.14**
Con Comp1	8/30/2011	0.5	12	<0.095
Con Comp2	8/30/2011	0.5	12	<0.087
Con Comp3	8/30/2011	0.5	12	<0.087
Con Comp4	8/30/2011	0.5	12	<0.095

Notes:
BOLD indicates that concentrations exceed laboratory method detection limits.
Red indicates concentrations of PCBs detected above the U.S. EPA Unrestricted Use Clean-up Level for bulk PCB remedaition waste of 1 ppm
mg/kg = milligrams per kilogram.
PCBs = Polychlorinated biphenyls

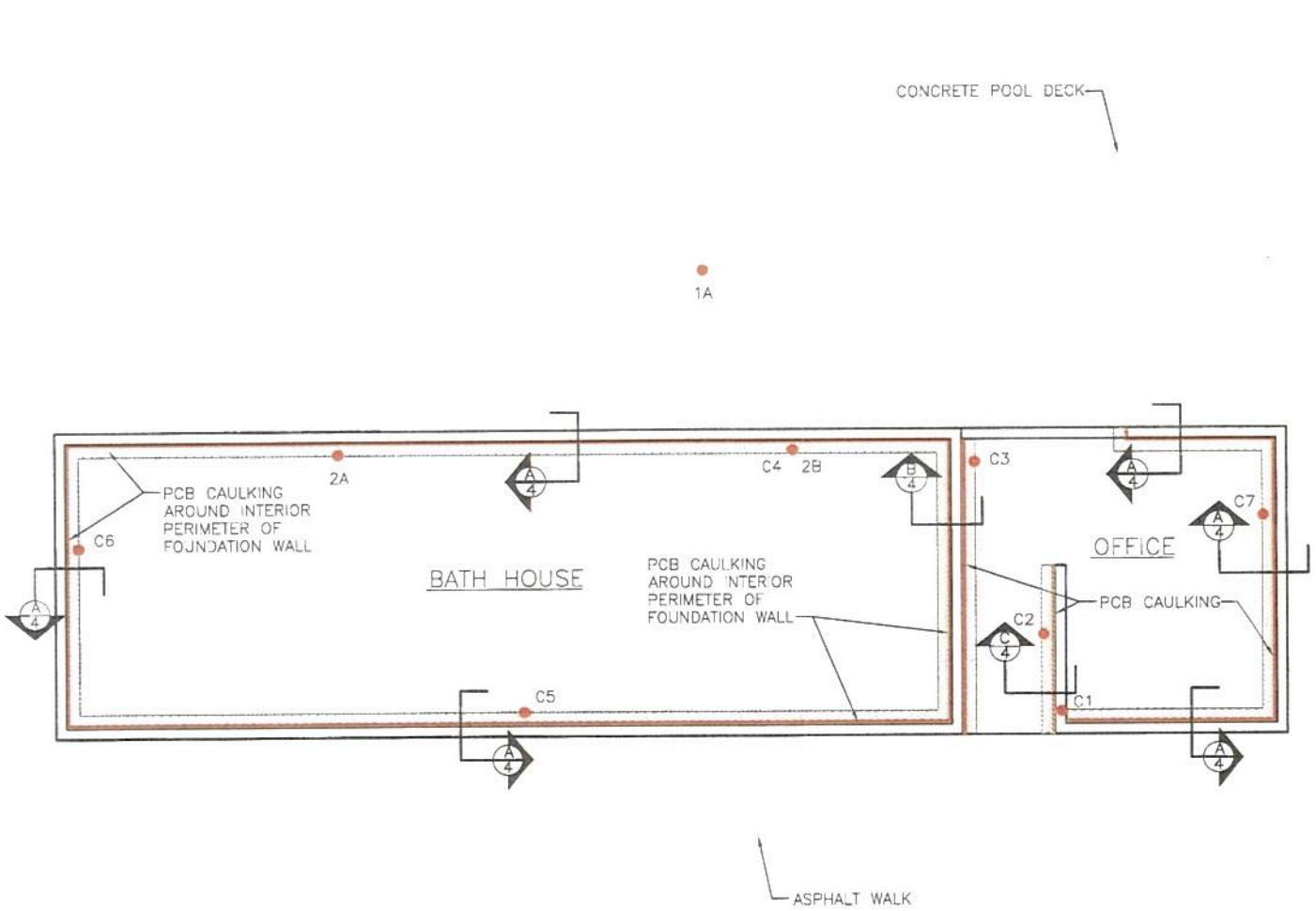
TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS

GUSTAVE JOHNSON MEMORIAL SWIMMING POOL
35 WANOOSNOCK ROAD
FITCHBURG, MA

Sample ID	Date Sampled	Depth (inches)	Distance from Source (horizontal inches away)	Result (mg/kg)
C1	12/1/2010	BOC - 6	2	<0.12
C1	12/1/2010	6 - 12	2	<0.11
C1	3/9/2011	BOC - 6	12	<0.12
C3	12/1/2010	BOC - 6	2	9
C3	12/1/2010	6 - 12	2	1.7
C3	3/9/2011	BOC - 6	12	<0.10
C5	12/1/2010	BOC - 6	2	<0.11
C5	12/1/2010	6 - 12	2	<0.11
C5	3/9/2011	BOC - 6	12	<0.10
C7	3/9/2011	BOC - 6	2	<0.10
C7	3/9/2011	6 - 12	2	<0.11
S1	6/7/2011	0-6	6	<0.11
S2	6/7/2011	0-6	6	**0.24**
S3	6/7/2011	0-6	12	<0.11
S4	6/7/2011	0-6	6	<0.12
S5	6/7/2011	0-6	6	**0.30**
S6	6/7/2011	0-6	6	<0.12
S2A	8/30/2011	0-3	12	**0.36**
S2B	8/30/2011	0-3	12	**0.19**
S2C	8/30/2011	0-3	12	**0.14**
S5A	8/30/2011	0-3	12	<0.13
S5B	8/30/2011	0-3	12	<0.14
S5C	8/30/2011	0-3	12	<0.13

Notes:
BOC = Bottom of Concrete
BOLD indicates that concentrations exceed laboratory method detection limits.
Red indicates concentrations of PCBs detected above the U.S. EPA Unrestricted Use Clean-up Level for bulk PCB remedaition waste of 1 ppm
Underlined indicates that concentrations exceed the MCP RCS-1, S-1/GW-2 and S-1/GW-3 soil standards of 1.0 mg/kg.
mg/kg = milligrams per kilogram.
PCBs = Polychlorinated biphenyls

FIGURES



LEGEND

- CAULKING SAMPLE LOCATION
- CONCRETE & SOIL TO BE REMOVED
- PCB CAULKING

PREPARED BY:

Resource Controls

DRAWING DESCRIPTION:

SITE PLAN
CAULKING SAMPLE LOCATIONS

CLIENT:
MASSACHUSETTS DEPARTMENT OF CONSERVATION & RECREATION

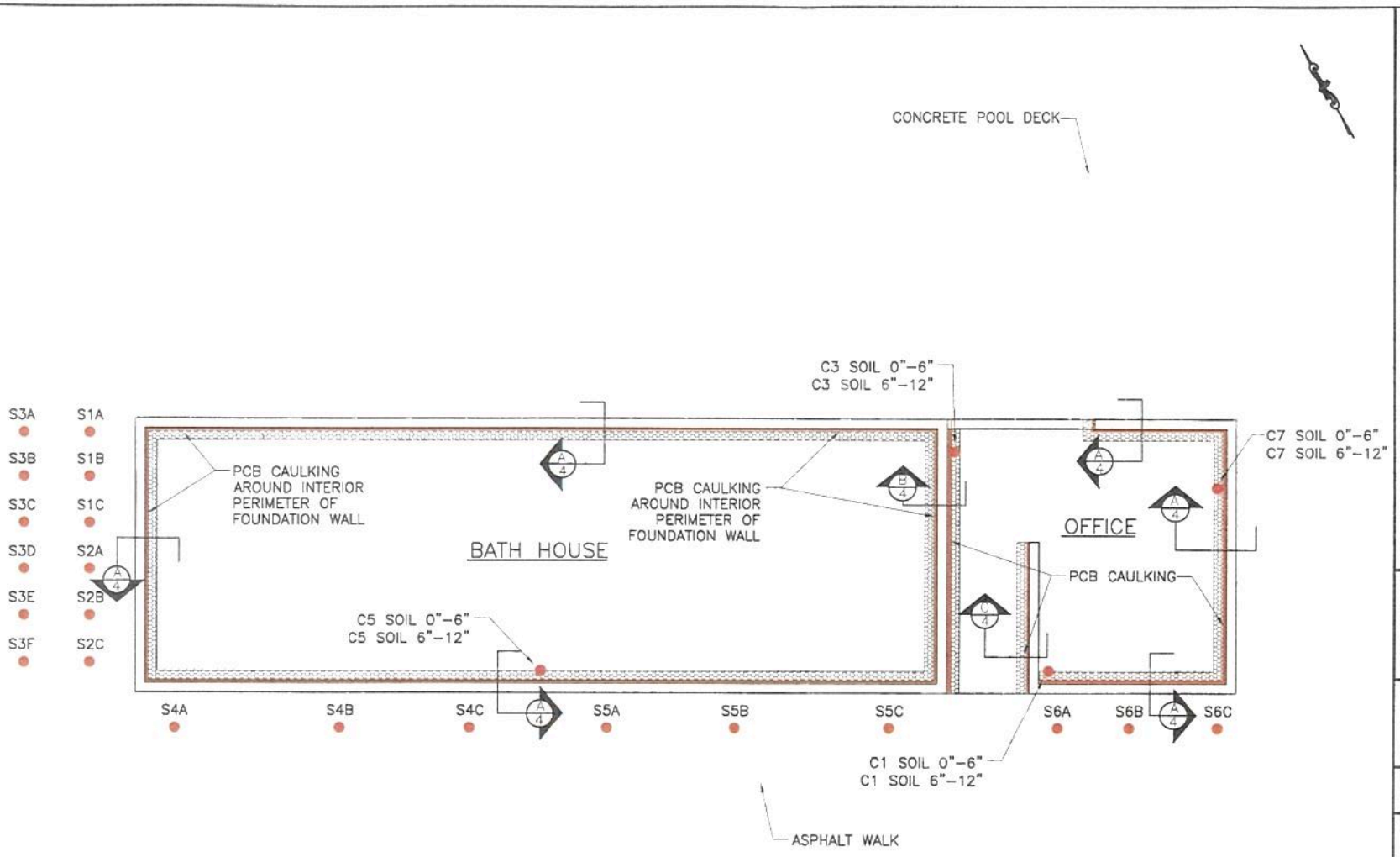
LOCATION:
GUSTAVE JOHNSON MEMORIAL SWIMMING POOL
35 WANOOSNOC ROAD
FITCHBURG, MA

DRAWN BY:	CHECKED BY:	APPROVED BY:
RGM	JK	JK

DRAWING DATE:	SHEET NUMBER:
10-07-11	SHEET 1 OF 1

PROJECT NUMBER:	DRAWING NAME:
7002	SITE PLAN

FIGURE # 1



LEGEND

- SOIL SAMPLE LOCATION
- CONCRETE & SOIL TO BE REMOVED
- PCB CAULKING

PREPARED BY:

Resource Controls

DRAWING DESCRIPTION:

SITE PLAN
SOIL SAMPLE LOCATIONS

CLIENT:

MASSACHUSETTS DEPARTMENT OF CONSERVATION & RECREATION

LOCATION:

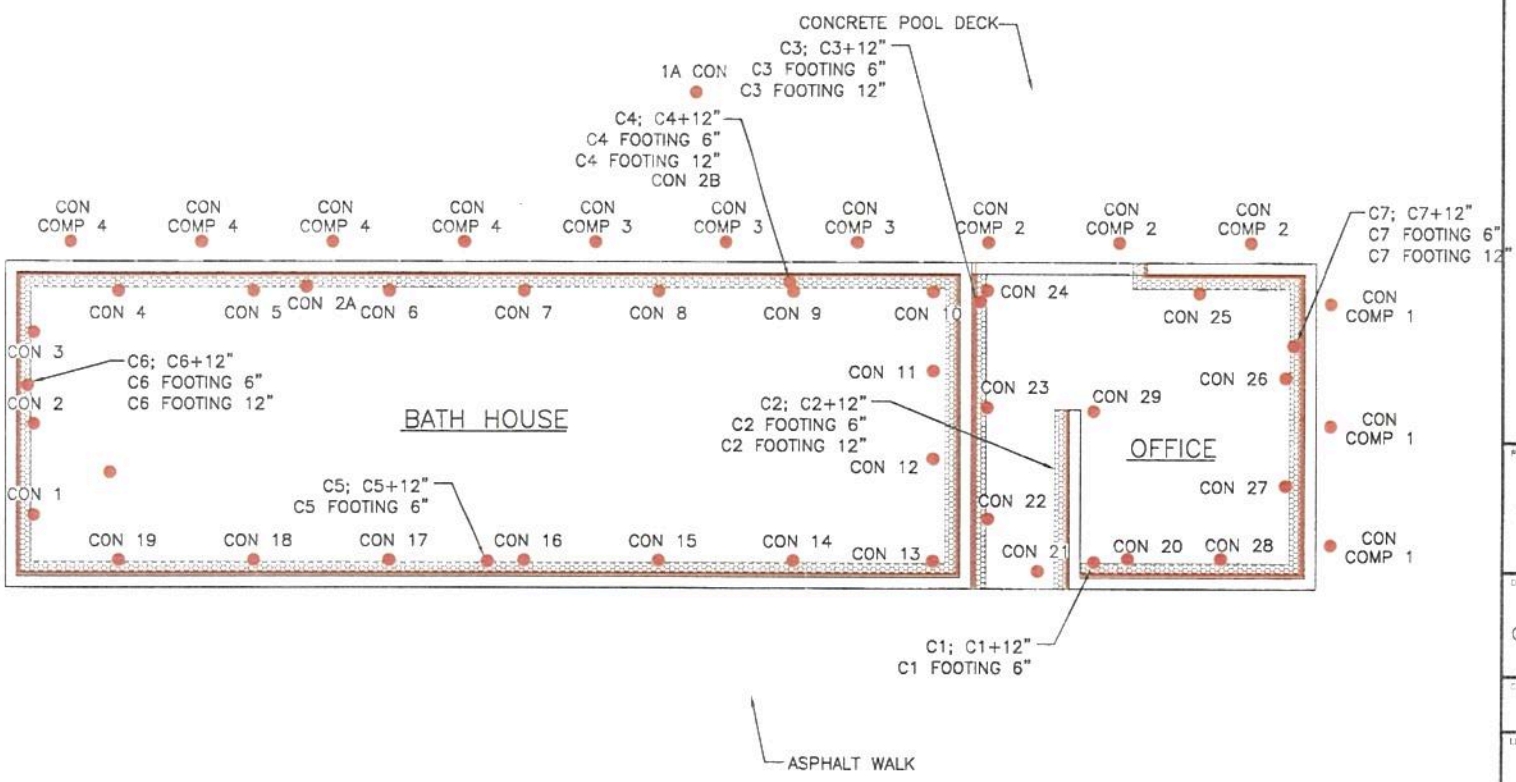
GUSTAVE JOHNSON
MEMORIAL SWIMMING POOL
35 WANOOSNOC ROAD
FITCHBURG, MA

DRAWN BY:	CHECKED BY:	APPROVED BY:
RGM	JK	JK

DRAWING DATE:	SHEET NUMBER:
10-07-11	SHEET 1 OF 1

PROJECT NUMBER:	DRAWING NAME:
7002	SITE PLAN

FIGURE # 2



LEGEND

- CONCRETE SAMPLE LOCATION
- CONCRETE & SOIL TO BE REMOVED
- PCB CAULKING

PREPARED BY:
Resource Controls

DRAWING DESCRIPTION:
SITE PLAN
CONCRETE SAMPLE LOCATIONS

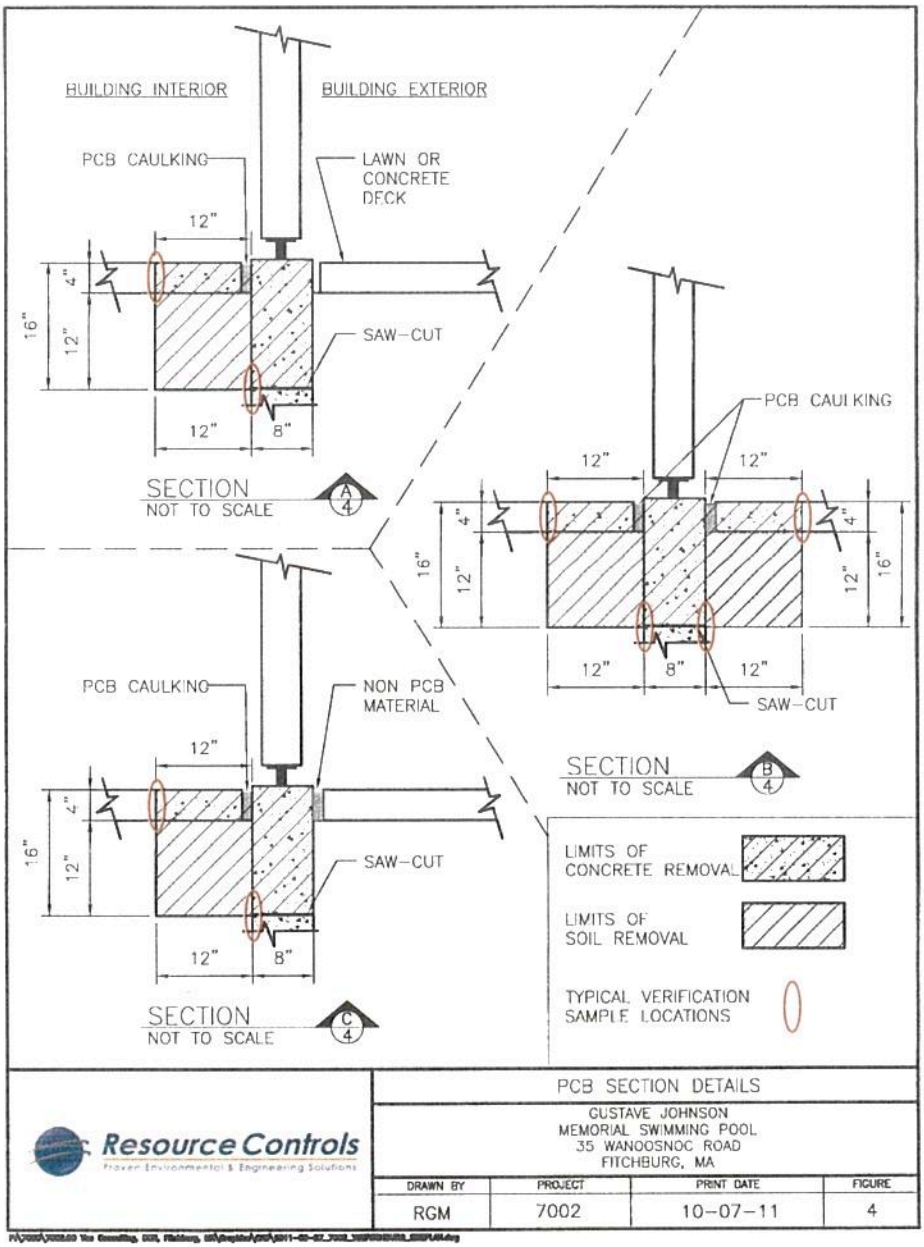
CLIENT:
MASSACHUSETTS DEPARTMENT OF CONSERVATION & RECREATION

LOCATION:
GUSTAVE JOHNSON MEMORIAL SWIMMING POOL
35 WANOOSNOC ROAD
FITCHBURG, MA

DRAWN BY:	CHECKED BY:	APPROVED BY:
DPJ	JK	JK

DRAWING DATE:	SHEET NUMBER:
10-07-2011	SHEET 1 OF 1
PROJECT NUMBER:	DRAWING NAME:
7002	SITE PLAN

FIGURE # 3



Resource Controls
Proven Environmental & Engineering Solutions

PCB SECTION DETAILS

GUSTAVE JOHNSON
MEMORIAL SWIMMING POOL
35 WANOOSNOC ROAD
FITCHBURG, MA

DRAWN BY	PROJECT	PRINT DATE	FIGURE
RGM	7002	10-07-11	4

Data Sources:

1. Office of Geographic Information (MassGIS), Commonwealth of Massachusetts Information Technology Division

Note: Locations of property lines and site features are approximate

LEGEND

Property Line

0 15 30 60 Feet

Approximate Scale: 1 inch = 60 feet

PREPARED BY:

Resource Controls

DRAWING DESCRIPTION:

SITE PLAN

CLIENT:

MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

LOCATION:

35 WANOOSNOC ROAD
FITCHBURG, MASSACHUSETTS

DESIGNED BY:	CHECKED BY:	APPROVED BY:
JVF	TDF	JK

DRAWING DATE:	SHEET NUMBER:
10/04/2011	1 of 1

PROJECT NUMBER:	DRAWING NAME:
7002	SITE PLAN

FIGURE 5

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APPENDIX A

Yee Consulting Sampling Report